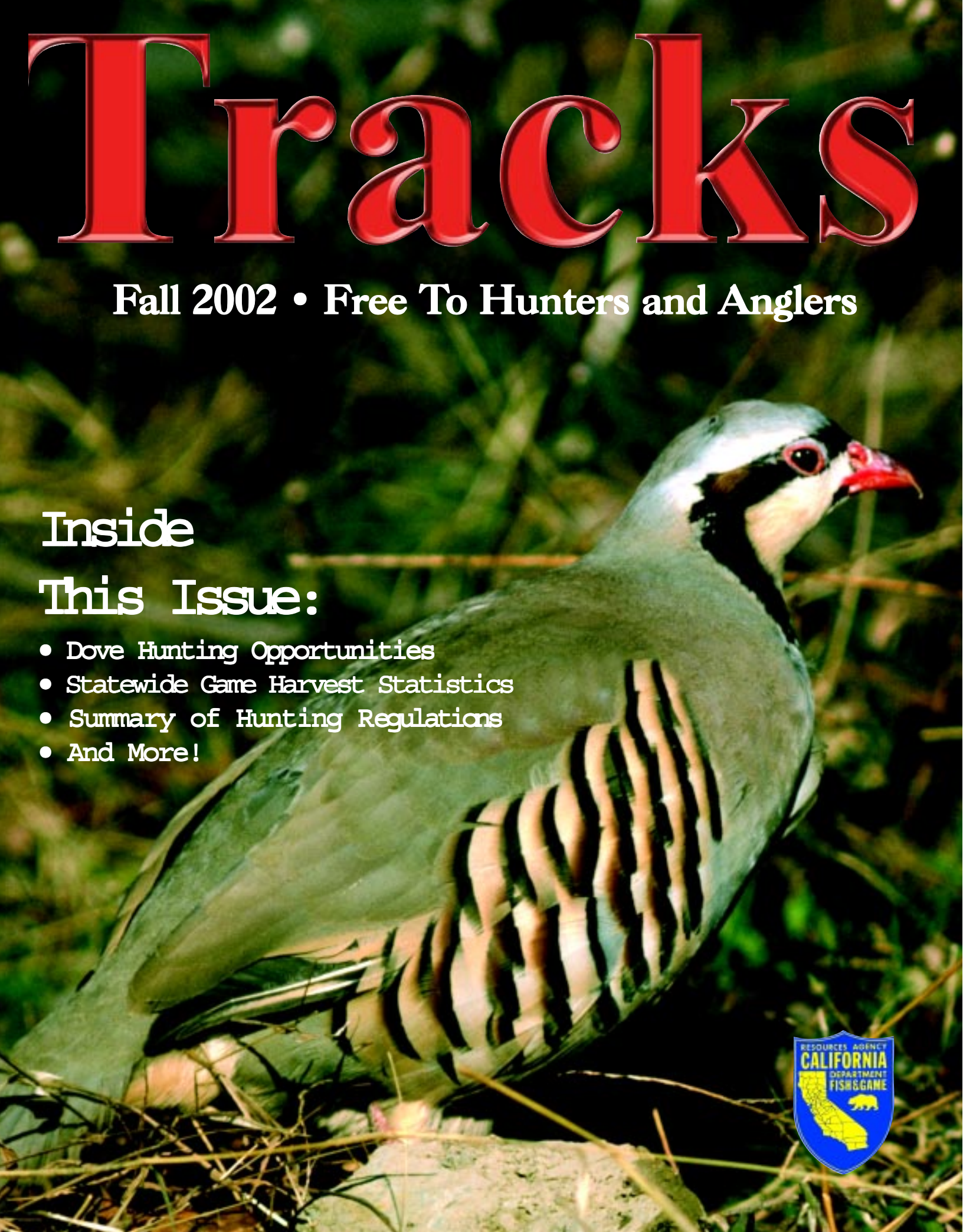
Tracks

Fall 2002 • Free To Hunters and Anglers



Inside This Issue:

- Dove Hunting Opportunities
- Statewide Game Harvest Statistics
- Summary of Hunting Regulations
- And More!

RESOURCES AGENCY
CALIFORNIA
DEPARTMENT
FISH & GAME

Fall 2002
Issue #25

Contents

Features

Departments

Page 11

Page 7

Page 14

Cover: Chukar. DFG file photo.

DFG Offices

Belmont - 284 Harbor Blvd., 94002	(650) 631-7730
Bishop - 407 West Line Street, 93515	(760) 872-1171
Eureka - 619 Second Street, 95501	(707) 445-6493
Fresno - 1234 E. Shaw Avenue, 93710	(559) 243-4005
Los Alamitos - 4665 Lampson Ave., Suite C, 90720	(562) 342-7100
Monterey - 20 Lower Ragsdale Drive, Suite 100, 93940	(831) 649-2870
Napa - 7329 Silverado Trail, 94558	(707) 944-5500
Rancho Cordova - 1701 Nimbus Road, Suite A, 95670	(916) 358-2900
Redding - 601 Locust Street, 96001	(530) 225-2300
Sacramento - 1812 Ninth Street, 95814	(916) 445-3400
San Diego - 4949 Viewridge Avenue, 92123	(858) 467-4201

Alternate communication format available upon request. If reasonable accommodation is needed call Lorna Bernard at (916) 653-0991 or the California Relay (telephone) Service for the deaf or hearing impaired from TDD phones at 1 (800) 735-2929.

Tracks

EDITOR
Lorna Bernard

MANAGING EDITOR
Jack Edwards

CONTRIBUTING WRITERS
Anthony Cline
Karen R. Fothergill
Scott Gardner
Frank Hall
Pat Lauridson
Liz Schwall

TECHNICAL REVIEW
Tom Blankinship
Jesse Garcia

DESIGN/LAYOUT
Lorna Bernard

Tracks is published quarterly by the California Dept. of Fish and Game
1416 Ninth Street, Room 1240
Sacramento, CA 95814
Phone: (916) 653-6420
Fax: (916) 653-1856
Web Site: http://www.dfg.ca.gov

For a free subscription to Tracks, send your mailing address to "Tracks By Mail" at the above address, or via email to: pmontalv@dfg.ca.gov.

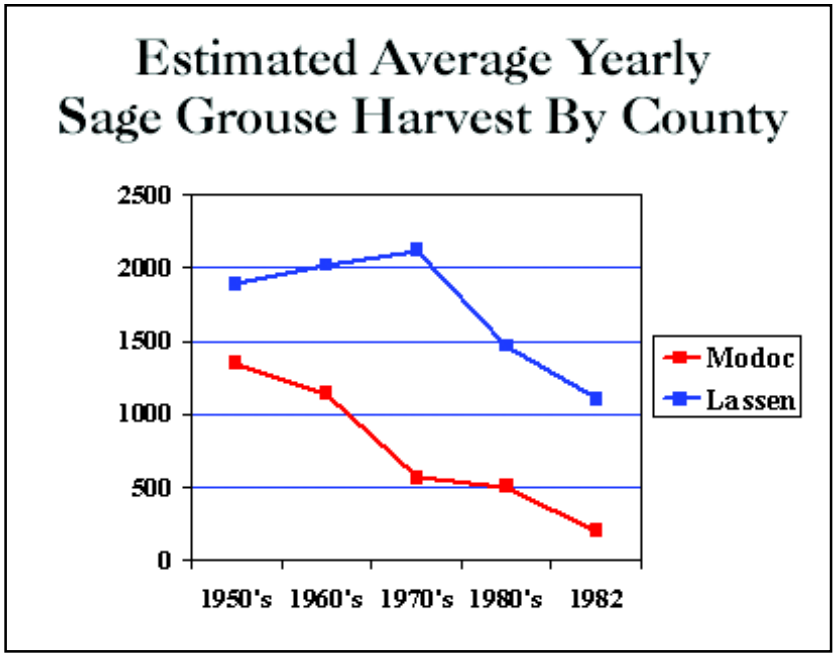
The Devil's Garden:
No Longer Paradise For Sage Grouse

by Frank Hall

"… on the shores of Wright and Rhett Lakes [Tule Lake], we found them very abundant, and killed all we cared to…"
Pacific Railroad Surveys,
J.S. Newberry, 1857

"… probably most abundant in northeastern Siskiyou County and Modoc County, where in certain areas the birds appear to thrive exceptionally well."
The Game Birds of California,
Grinnell, Bryant and Storer, 1918

Among the places and times in California's upland game bird heritage where the proverbial "flocks that darkened the sky…" could be seen was probably sage grouse on Modoc County's Devil's Garden in the 19th and early 20th centuries. Forget, for a moment, that numbers of quail in the San Francisco Bay Area (even Los Angeles), sharptail grouse on the upper Pit River Plains, and pheasants in the Sutter Basin were pretty spectacular too. The hundreds of square miles between Tule Lake and the Warner Mountains may have had California's highest sage grouse populations. Like phantom clouds of doves in places like Silicon Valley, those days are gone.



Rummaging through DFG's old Modoc County files, I found a form from the Barnes Grade sage grouse check station from a hot first Saturday in September, 1958. Pothole Springs, Sally's Camp, Boles Meadow, Red Lake, Jack's Swamp, Logan Slough, Fairchild Swamp reported mostly limits (two birds). These guys didn't drive out there in air-conditioned SUVs either; not even many pickups, mostly just sedans or maybe a station wagon with street tires and fat white-walls.

A note said "..successful hunters saw hundreds; some hunters saw none." Curious; this is the same pattern reported from the Lassen hunts 30 to 40 years later. Sage grouse usually bunch up on favored forb sites in late summer which can leave a lot of miles between grouse. They often form very large groups (20 to 80) which usually flush long. "…lay the shoe leather down… eventually

they'll flush in gun range," a longtime sage grouse hunter once told me. "…don't need a dog. Probably just get snake-bit or heat stroke anyway. Pretty rare for even a single bird to hold tight…"

There's an old map of the Devil's Garden in the files. It shows a snapshot of sage grouse distribution southeast of Clear Lake during three periods: the 1920s, 1950s and 1970s. Active and historic strutting grounds (called "leks"), summer concentrations, and estimated numbers of grouse are shown. There are

"There are very good reasons why they are called *sage* grouse."

three places marked "1,000+" in the 1920s; these same areas are shown as "75-150" by the 1950s and by 1977, nine areas are shown as "10-40." There were 46 active leks in the late 1940s and nine by 1977. There was one lek of five males and one satellite lek with 11 males in the spring of 2002. Those 16 males are the only ones we know of still strutting on the Devil's Garden.

No sage grouse hunting season has been held in Modoc County for 20 years. During the last open season (1982) an estimated 200 sage grouse were taken by hunters, down to about 15 percent of the average harvest in the 1950s (see chart, below left). Lassen County had more hunters but Modoc County may have started with more sage grouse, at least before the middle of the 20th century.

The DFG estimated that 14,000 sage grouse occurred in Modoc County in 1970. That estimate was probably too high but would have included Likely Tables, Rocky Prairie, Surprise Valley, and many other areas in addition to Devil's Garden. While all of California's sage grouse populations have declined in the last 30 years, nowhere has it been as dramatic as on the Devils Garden—not even where they're hunted today in parts of Lassen, Mono and Inyo counties. It wasn't urban development or pesticides or clean farming that did them in. So what in the world changed on the Devil's Garden?

Sage grouse are very mobile for an upland game bird. Some populations are highly migratory and travel over 100 miles each year to meet their seasonal needs (see Tracks article on sage grouse, Fall, 2001). Sage grouse habitat requirements are fairly straightforward. They need strutting grounds (open flats within sage brush) in the spring to mate, at least seven inches of grass under a nest canopy shrub (usually sagebrush) within a few miles of leks, brood rearing sites with an abundance of forbs and insects to rear young near or within a stand of sagebrush, and taller, more dense sagebrush to ride out the winter snowstorms. Ideally, winter sites have an abundance of younger, more nutritious sagebrush which provide forage for the following spring breeding season. Notice that sagebrush is an important component year-round. There are very good reasons why they are called *sage* grouse.

Sage grouse may be good at finding preferred habitat but are not very adaptable. They will go into alfalfa for green forage or insects and sometimes nest or roost near trees but the bottom line is they need sagebrush, forbs and grass for nests. They will not thrive in a prairie of grass or juniper woodland with little sagebrush.

The Devil's Garden also provides important winter range for deer which summer in Oregon. In the late 1940s, the DFG set up a series of transects in conjunction with Modoc National Forest to monitor changes in habitat on the Devil's Garden. Plots were located on 69 transects and were read at 10 year intervals. These data showed some significant changes in habitats used by thou-

(continued)

Why Does It Have To Be Sagebrush?

As sagebrush is gradually replaced by juniper throughout much of northern California, why can't the birds take advantage of the food and cover *it* provides? To a sage grouse, juniper and sagebrush are like apples and oranges—no comparison. Here are some reasons why juniper isn't good for sage grouse:

- It consumes great amounts of water and soil nutrients, robbing other more nutritious shrubs, forbs and grasses.
- It can provide predator concealment and especially perch sites for raptors which may prey on sage grouse.
- It is a rapid invader and not easy to control.
- It has lower value than the vegetation it replaces for almost all species of wildlife.
- Although susceptible to fire, juniper often burns so hot that it destroys beneficial nearby shrubs such as bitterbrush and sagebrush. The vegetation that replaces them is usually annual grasses and forbs that are of little value to sage grouse.

continued from page 5

sands of mule deer and thousands of sage grouse. Monitoring of these plots since 1948 shows:

- Sagebrush cover *decreased* significantly
- Dead shrub cover (mostly sagebrush) *increased* significantly
- Juniper cover *increased* significantly
- Increases in juniper cover were proportional to decreases in sagebrush cover.

Average sagebrush cover on transects peaked at 16 percent in 1967. It was down to eight percent in 1998, well under the 15-25 percent needed for sage grouse nesting and up to 30 percent needed in winter.

Another factor that can reduce sagebrush is fire. Sagebrush takes 10 to 20 years to re-establish after burning. Cheat grass (an exotic annual) thrives with fire and can provide an abundance of fine fuel to support fires. Fire frequency usually increases due to the presence of cheat grass and sagebrush has little chance of establishing more dense stands. In the worst cases, especially on drier sites in the west, what used to be sagebrush is now an ocean of cheat grass that burns so frequently sagebrush doesn't stand a chance.

The U. S. Fish and Wildlife Service conducted an inventory of 18 historic leks on the Devil's Garden during the spring of 2002. All of them were inactive. A photo analysis of each site showed that 16 of the 18 leks had little or no adjacent sagebrush for grouse to roost in. Eight of the 18 leks had juniper encroachment levels that would make sage grouse unlikely to use them. One lek had a fence near the center. This fence may have been contributing to better livestock management but fences can be significant obstacles to sage grouse near strutting grounds. Total livestock grazing on the Devil's Garden has declined by at least 50 percent in the last 50 years. Domestic sheep grazing has declined by about 90 percent. These reductions have not caused an increase in sage grouse and they continue to decline.

The responsibility for the future of sage grouse habitat on the Devil's Garden is mostly up to federal agencies which manage land use on more than 90 percent of the Devil's Garden. The only strutting ground active in 2002 was on the peninsula (known as the "U") at Clear Lake National Wildlife Refuge and 80 percent of that area burned in a wildfire in the summer of 2001. Limited radio tracking of grouse from this lek shows that they travel to sites on the National Forest. Meaningful restoration of sage grouse habitat will most likely hinge on re-planting sagebrush on the peninsula and other sites, creative grazing management, and aggressive juniper removal at selected sites throughout the Devil's Garden. Ironically, one benefit from California's energy woes is that juniper (as biomass fuel) is becoming more economically attractive to harvest.

1948 photo. 46 active sage grouse leks observed.

1998 photo. One active sage grouse lek observed.

This pair of photos was taken from the same location (transect starts) 50 years apart. The trees are western juniper and most of the shrubs are sagebrush and bitterbrush. Notice how shrub cover has decreased and how juniper cover has increased. DFG photos.

Continued from page 6

Has "No Hunting" been the path to sage grouse restoration in Modoc County? Sage grouse hunting has been closed for 50 of the last 100 years in Modoc County. This included no hunting in 1907-1910, 1931-1951, 1953, 1960-1962, 1967, 1968, and 1983-2002. Generations of sage grouse grew up, reproduced and died and never even heard a shotgun. In the years when the season was open, the longest season was three days and the season limit was never more than two grouse in any of the last 72 years.

While there may never be enough sage grouse to allow a season again, closing hunting on the Devil's Garden with little habitat restoration hasn't been the answer. Reintroducing birds has been suggested. There are no lasting success stories from attempted sage grouse transplants in North America; their reproductive biology is too complex. Besides, if the habitat is not sufficient for the sage grouse that live there now, is it reasonable to expect that newcomers could make it?

There's a chance the Devil's Garden sage grouse population could increase in the future but only with significant habitat restoration. The current population provides a core group that would respond to increases in sagebrush and forbs, and decreases in juniper cover. After all, they have the genetic advantages of surviving "on the Garden" for a long, long time.

Frank Hall is a DFG wildlife biologist who has studied Lassen County sage grouse for 20 years.

Male sage grouse. Photo by Fred Ebert.

Wild Turkeys: Desirable Non-natives?

by Scott Gardner

More and more, we are hearing about the problems associated with non-native species; for example, the much publicized concern regarding the discovery of northern pike in Plumas County's Lake Davis. Northern pike are voracious predators that have the potential to completely wipe out native populations of fish and amphibians.

Similar to sport fish, many of the most sought after game birds in California are not native to the state, including turkeys, pheasants, and chukars. The introduction of game birds has accounted for more than 50 percent of the intentional release of non-native animals worldwide. Turkeys are well established throughout much of California as the result of the DFG's stocking programs to establish hunting opportunities during much of the 20th century. Over the past 10 years, turkeys have become wildly popular among the sporting public. Much of our turkey population now occupies lower elevation oak woodland habitats, most of which is privately owned.

More recent efforts by the Department have involved releasing Merriam's turkeys on higher elevation public lands to provide more hunting opportunities. Merriam's turkeys are a subspecies of wild turkey native to higher elevation habitats of Arizona, Colorado, and South Dakota. Concerns about the potential effects of this non-native bird on native plants and animals have grown in recent years, causing the DFG to step back and take a look at the situation.

With turkeys, the issue of native versus non-native is complicated. Wild turkeys are not considered native to most of the western states, including California. However, turkey bones are among the most abundant fossils found in the La Brea tar pits in Los Angeles County. Fossils found in the La Brea tar pits were trapped there during the Pleistocene Era, which ended about 10,000 to 12,000 years ago.

Wild turkeys are thought to have evolved from peafowl-like ancestors that crossed through the Bering land bridge from Asia, just like humans. By the Pleistocene, the family of turkey-like birds (*Meleagrididae*) had evolved into four species. Two still exist today: the wild turkey (*Meleagris gallopavo*) and the ocellated turkey (*Meleagris ocellata*), which occupies the Yucatan Peninsula in Mexico. The latter should not be confused with a *sub*species of wild turkey that many turkey hunters may know, the Osceola or Florida turkey, although one look will avoid any confusion (see photos, right).

Two other species, now extinct, existed during the Pleistocene, including what has been called the bigfoot turkey (*Meleagris crassipes*) and the

California turkey (*Meleagris californica*). Although the bigfoot turkey had longer legs and larger feet, it was smaller overall than the wild turkey. The California turkey was intermediate in size between the wild turkey and bigfoot turkey, and its distribution was limited to the Los Angeles Basin. Two other interesting fossil records of turkeys exist in Shasta County and Idaho, both believed to be from the modern wild turkey, possibly suggesting that their range extended further across the west than is currently thought. However, they are not thought to have extended south to the range occupied by the California turkey.

Plant and animal life found in California during the Pleistocene was much different, and included animals such as sabre-tooth cats, wooly mammoths, camels, and giant sloths, all of which now are extinct. During the time that these turkey species occupied southern California, those habitats were wetter than they are today; presumably as the habitat became drier, it was no longer suitable for turkeys. The Holocene, which is the era following the Pleistocene that we are still in now, brought about major geologic and climatic changes in the earth. As a result of these changes, much of the habitats that these animals had evolved to occupy were no longer suitable for them and many went extinct, including turkeys.

As if the issue weren't already complicated enough, here's another interesting twist in the turkey saga: paleontologists theorize that Merriam's turkeys originated from domestic stock, and therefore aren't native at all. This theory suggests that Native Americans, specifically Anasazi, domesticated turkeys, and that the turkeys became feral when the Native American cultures broke down around 1300 A.D., eventually occupying the same pine habitats in the southwest that were once occupied by the now-extinct bigfoot turkey. There is a fair amount of evidence to support this theory.

If turkeys once occupied California, then why aren't they considered native? The changes that occurred to California's landscape since the Pleistocene have been pretty dramatic. Much of the state's current plant and animal life have evolved without the presence of wild turkeys.

Usually, the animals that occurred here when Columbus arrived in the New World are considered native to North America today. In California, this is generally considered to be when Europeans arrived. These peoples often brought plants and animals with them, and tended to be more mobile, thereby moving non-natives around. However, the theory involving Merriam's turkeys may suggest that such changes also occurred during Native American times.

Concern about native versus non-native surrounds a theory basic to evolution; plants and animals that have evolved together have developed mechanisms over time that allow them to coexist with one another. Over time, animals develop a niche in the environment, or a unique function, that is often synergistic to an entire ecosystem. The introduction of non-native, or exotic, organisms may disrupt those ecosystems, causing pressures to plants and animals that they did not evolve to overcome. The most obvious of these concerns is the introduction of a non-native predator.

To get back to the 21st century, there may be more turkeys in California now than there were during prehistoric times, due mainly to the DFG's stocking activities throughout much of the 20th century. These stocking activities have provided expanded hunting opportunities, a high-priority goal of the DFG. However, does this conflict with the DFG's goal of preserving native species?

That question is very complex and difficult to answer. Turkeys are "opportunistic omnivores," which means they may make use of a wide variety of plants and animals available to them in the environment. Turkeys have a varied diet, including primarily plants, but also some invertebrate animals. Their opportunistic behavior would allow them to

Top: The Osceola, or Florida turkey.

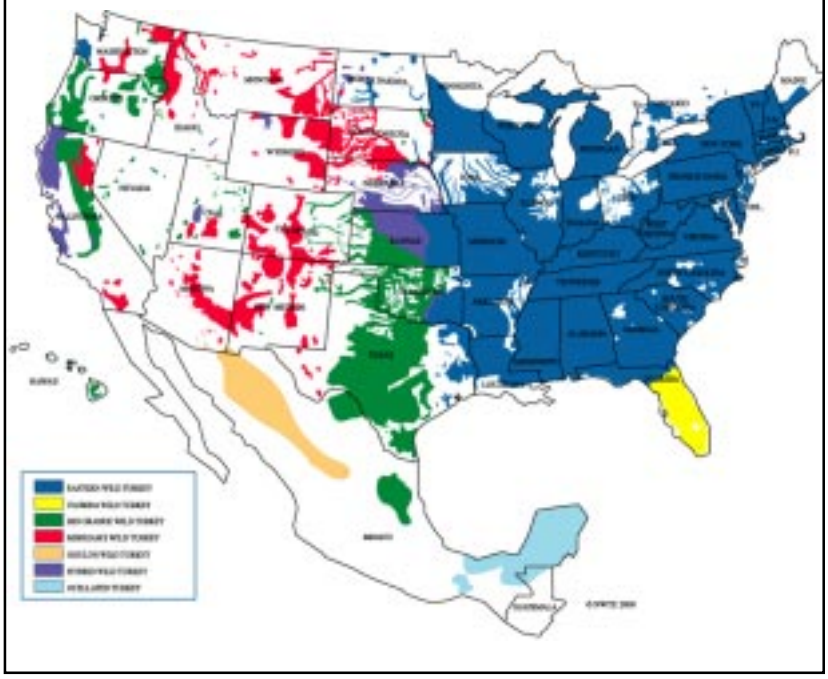
Right: The ocellated turkey which occupies the Yucatan Peninsula in Mexico. Photos courtesy of the National Wild Turkey Federation.

continued from page 9

exploit various food sources in any environment where they are released, but they tend to utilize what is most available to them. Such behavior makes it difficult to determine with certainty the effects that turkeys may have in new areas. Currently, there is no evidence that turkeys have caused any sensitive species to decline, but the possible threat to sensitive species is an ongoing concern.

The presence of turkeys in California also conflicts with the management goals of certain public lands. A common sight in many state parks and even some national parks, turkeys are not part of the management goals of these lands, which focus on native species. Furthermore, turkeys are considered a public nuisance in some areas where populations have grown unchecked and are causing a nuisance in urban and agricultural areas.

Current Distribution of The Wild Turkey By Subspecies



Native or not, turkeys are in California for good. The DFG considers turkeys a desirable non-native animal, but is reassessing its long-standing practice of stocking wild turkeys throughout the state. Future stocking efforts will focus on putting turkeys is areas that the DFG will highlight for hunting opportunities and resolving conflicts by moving birds from areas where they are not desired. The DFG is currently preparing a new managment plan to address these issues.

Scott Gardner is a wildlife biologist and statewide coordinator of the DFG's wild turkey program.

Wild Turkeys of California

Far left: The Rio Grande wild turkey, first introduced from Texas in 1959, is the most common subspecies of turkey in California today. Photo by Sam Jimenez.

The Merriam's wild turkey, immediate left, is noted for its white tail feather tips. Photo courtesy of National Wild Turkey Federation.

D F G's Hunter Survey: 55 Years And Still Counting

by Pat Lauridson

Each year, at the end of the hunting season, the California Department of Fish and Game (DFG) conducts a survey of hunter effort and success. This survey, officially called the Game Take Hunter Survey, was first initiated in 1948. Consequently, this year's mailing marks the 55th year the survey has been sent to California's hunters!

Through the Game Take Survey, DFG seeks to learn annually how many individuals hunted each of California's game species, how successful they were, how much effort they put in, and in what counties they hunted. This information is then compiled, analyzed, and summarized into a report. Information from this report is used in several important ways including to help establish hunting regulations (e.g., season length, bag limits, etc.), to strengthen California Environmental Quality Act documents addressing hunting, and as an indicator of game population health and hunter trends.

Each January DFG sends a one-page survey form to approximately 8 percent of individuals who purchased California hunting licenses the prior year, selected at random. Over the next two months, about 25 percent of these surveys are typically returned. While this is a good quantity of surveys, it typically is not enough to obtain a solid representative sample. Accordingly, a follow-up mailing is sent to all non-respondents. Response to this subsequent mailing is also usually about 25 percent, thereby significantly increasing the final sample size. Further, this increased response facilitates a reduction in potential non-response bias —the phenomenon of more successful individuals (in this case, hunters) being more inclined to return a questionnaire than unsuccessful or nonparticipating individuals. Reducing non-response bias is important as it can be one of the principle causes of inflated bag and hunter-use figures in surveys of this type.

All returned surveys are meticulously hand-entered by scientific aides into a database. This process alone often takes up to three months. Once data entry is completed, the finalized database is forwarded to a staff biologist for querying, statistical analysis, and report formation. Recent final reports have consisted of 20 pages comprised of a methodology synopsis and 10 data tables which detail an entire California hunting season's estimated take, hunter effort, and hunter success.

At the time this article was written, the 2001 Game Take Hunter Survey is well underway. Two changes were made this year in an effort to further refine the survey's accuracy. First, we doubled the sample size, sending out twice as many surveys (over 52,000!) as in the past. And second, a prize drawing was added. By offering prizes (generously donated by the California Waterfowl Association, Ducks Unlimited, and the National Wild Turkey Federation) to

Top 10 Counties for Harvest of Selected Species, 2000

SPECIES	% OF STATE TOTAL
PHEASANT (Excluding LGBCs*)	
1-Colusa	19.0
2-Butte	11.4
3-Yolo	7.3
4-Solano	6.7
5-Glenn	6.5
6-Sutter	5.7
7-San Joaquin	5.1
8-Sacramento	3.8
9-Stanislaus	3.0
10-Imperial	2.9
CALIFORNIA QUAIL	
1-Kern	14.0
2-San Luis Obispo	8.3
3-Monterey	6.3
4-Santa Barbara	6.0
5-Lassen	5.0
6-Fresno	4.5
7-Tehama	3.9
8-Los Angeles	3.8
9-Riverside	3.5
10-Siskiyou	3.0
MOURNING DOVE (Sept 1-15)	
1-Imperial	11.6
2-Kern	10.4
3-Fresno	7.9
4-Riverside	5.7
5-Tulare	4.5
6-Merced	4.4
7-San Bernardino	4.2
8-San Joaquin	3.5
9-Madera	3.3
10-Butte	3.2
WILD PIG	
1-Monterey	14.2
2-San Benito	10.6
3-San Luis Obispo	4.5
4-Santa Clara	3.6
5-Tehama	3.5
6-Sonoma	3.5
7-Kern	2.6
8-Santa Barbara	2.0
9-Madera	1.8
10-Mendocino	1.5
WILD TURKEYS (Spring)	
1-El Dorado	11.3
2-Shasta	9.0
3-Tehama	7.7
4-Mendocino	6.5
5-Placer	5.4
6-Amador	5.2
7-San Luis Obispo	4.6
8-Sonoma	4.4
9-Yuba	4.2
10-Butte	4.0

SPECIES	% OF STATE TOTAL
DEER	
1-Siskiyou	8.4
2-Trinity	6.0
3-Mendocino	5.8
4-Humboldt	4.9
5-Tehama	4.9
6-Shasta	4.2
7-Lassen	3.6
8-Monterey	3.3
9-San Luis Obispo	3.1
10-Fresno	3.1
MOUNTAIN QUAIL	
1-Siskiyou	13.9
2-Trinity	8.5
3-Kern	6.9
4-Tuolumne	6.0
5-Plumas	5.4
6-El Dorado	4.5
7-Tulare	4.3
8-Fresno	4.0
9-Shasta	3.6
10-Lassen	3.3
COTTONTAIL RABBITS	
1-Kern	20.4
2-San Luis Obispo	8.0
3-Riverside	7.8
4-Monterey	6.8
5-Inperial	6.1
6-Stanislaus	5.8
7-San Bernardino	4.2
8-Merced	3.8
9-Fresno	3.7
10-Santa Barbara	3.5
DUCKS	
1-Colusa	15.9
2-Merced	14.1
3-Butte	8.7
4-Solano	6.5
5-Glenn	5.1
6-Sutter	5.0
7-Imperial	4.9
8-Siskiyou	4.4
9-Yuba	3.5
10-Fresno	2.9
GEESE (Dark & White)	
1-Colusa	20.4
2-Glenn	9.2
3-Imperial	8.1
4-Siskiyou	7.4
5-Butte	7.3
6-Sutter	6.9
7-Modoc	6.8
8-Lassen	5.1
9-Merced	4.3
10-Sacramento	3.2

**LGBC's=Licensed Game Bird Clubs*

Hunters, Bag, and Hunter Effort by Species, 2000

PHEASANTS (Wild)	
Statewide Bag	152,352
Hunters Reported	48,814
Average Seasonal Bag	3.1
Total Days Hunted	204,820
Average Days Hunted	4.2
PHEASANTS (LGBCs)*	
Statewide Bag	398,931
Hunters Reported	40,710
Average Seasonal Bag	9.8
Total Days Hunted	228,274
Average Days Hunted	5.6
QUAIL (ALL SPECIES)	
Statewide Bag	760,521
Hunters Reported	86,695
Average Seasonal Bag	8.8
Total Days Hunted	487,247
Average Days Hunted	5.6
CALIFORNIA QUAIL	
Statewide Bag	564,885
Hunters Reported	53,326
Average Seasonal Bag	10.6
Total Days Hunted	302,289
Average Days Hunted	5.7
MOUNTAIN QUAIL	
Statewide Bag	153,496
Hunters Reported	27,744
Average Seasonal Bag	5.5
Total Days Hunted	158,835
Average Days Hunted	5.7
GAMBEL'S QUAIL	
Statewide Bag	42,140
Hunters Reported	5,625
Average Seasonal Bag	7.5
Total Days Hunted	26,123
Average Days Hunted	4.6
COTTONTAIL RABBITS	
Statewide Bag	76,081
Hunters Reported	12,489
Average Seasonal Bag	6.1
Total Days Hunted	78,274
Average Days Hunted	6.3
TREE SQUIRRELS	
Statewide Bag	58,507
Hunters Reported	12,966
Average Seasonal Bag	4.5
Total Days Hunted	85,488
Average Days Hunted	6.6
WILD TURKEY (SPRING)	
Statewide Bag	15,191
Hunters Reported	24,025
Average Seasonal Bag	0.6
Total Days Hunted	97,024
Average Days Hunted	4.0
WILD TURKEY (FALL)	
Statewide Bag	6,102
Hunters Reported	11,218
Average Seasonal Bag	0.5
Total Days Hunted	32,447
Average Days Hunted	2.9

**LGBC's=Licensed Game Bird Clubs*

DUCKS	
Statewide Bag	1,908,659
Hunters Reported	94,195
Average Seasonal Bag	20.3
Total Days Hunted	1,017,842
Average Days Hunted	10.8
GEESE	
Statewide Bag	177,490
Hunters Reported	48,623
Average Seasonal Bag	3.7
Total Days Hunted	494,398
Average Days Hunted	10.2
DOVES (ALL SPECIES)	
Statewide Bag	1,773,468
Hunters Reported	121,875
Average Seasonal Bag	14.6
Total Days Hunted	441,643
Average Days Hunted	3.6
MOURNING DOVES	
Statewide Bag	1,721,667
Hunters Reported	115,742
Average Seasonal Bag	14.9
Total Days Hunted	419,969
Average Days Hunted	3.6
BAND-TAILED PIGEONS	
Statewide Bag	12,553
Hunters Reported	3,655
Average Seasonal Bag	3.4
Total Days Hunted	13,729
Average Days Hunted	3.8
CHUKAR PARTRIDGE (Wild)	
Statewide Bag	36,547
Hunters Reported	7,468
Average Seasonal Bag	4.9
Total Days Hunted	39,629
Average Days Hunted	5.3
DEER	
Statewide Bag	58,783
Hunters Reported	187,278
Total Days Hunted	1,532,292
Average Days Hunted	8.2
WILD PIGS	
Statewide Bag	38,040
Hunters Reported	39,184
Average Seasonal Bag	1.0
Total Days Hunted	305,530
Average Days Hunted	7.8
BLUE/RUFFED GROUSE	
Statewide Bag	11,854
Hunters Reported	7,404
Average Seasonal Bag	1.6
Total Days Hunted	43,952
Average Days Hunted	5.9
JACK RABBITS	
Statewide Bag	75,445
Hunters Reported	10,360
Average Seasonal Bag	7.3
Total Days Hunted	106,208
Average Days Hunted	10.3

(continued from page 11)

all respondents, regardless of success, we anticipate an increase in response rate and further minimization of non-respondent bias.

We currently have received over 14,000 initial responses and follow-up mailings have been sent to non-respondents. Three scientific aides are diligently entering first respondent data and results from the 2001 Hunter Survey are expected to be published in October of this year. A summary of the 2000 survey is shown at left.

If you typically purchase a hunting license, keep an eye out for the Game Take Hunter Survey in your mailbox in future years. Your response to the survey will greatly assist DFG in its effort to monitor California's game populations, hunter effort, and harvest trends. To learn more about the Game Take Hunter Survey, you may contact the Wildlife Programs Branch at (916) 445-3406.

Pat Lauridson is a DFG wildlife biologist in the Upland Game Unit.

Hunter game take questionnaires were mailed to 23,924 randomly selected hunting licensees on February 24, 2001. These individuals represented approximately 7.6 percent of the total number of licenses sold (314,683) in 2000. A follow-up mailing consisting of the entire hunter game take questionnaire was sent to non-respondents on May 25, 2001. A total of 9,902 persons returned the questionnaire, representing approximately 3.15 percent of the total number of licenses sold. It was determined through data analysis and extrapolation that there was a total hunting effort of approximately 271,113 hunters who spent 5,913,288 days in the field. Harvest results can be found in the tables at left.

Plant Safflower, Grow Doves In Imperial County

by Karen R. Fothergill

Imperial County in sunny Southern California is known for its massive year round agricultural industry. Most of this privately owned land is prepared for the next crop as soon as one is harvested. When there is an over abundance of a particular crop, however, a farmer can save money by leaving the field idle. Over the last few years, quite a bit of land has been left fallow. Where one man sees an empty field, Leon Lesicka sees an opportunity to create game bird habitat.

An avid hunter and conservationist, Lesicka founded Desert Wildlife Unlimited (DWU) in 1980. His organization is a non-profit wildlife conservation group that has made major contributions to desert wildlife habitat on public lands in Imperial and Riverside counties.

Lesicka's interest in habitat restoration has expanded to include private land through one of his recent projects, putting his plan for the fallow fields to the test last dove season. He was able to stretch every dollar of funds and assistance from California Department of Fish and Game's Game Bird Heritage program, DWU, Quail Unlimited, Pheasants Forever, Imperial County Fish and Game Commission, Western Farms, Cal Energy, Marlin Madearis, Titon Corporation and General Dynamics. With the support he generated, and through DWU, Lesicka leased five fields. Strips of these fields were disced, planted and irrigated, then planted with wheat, milo and safflower. The planting was timed so that the crops would mature just before the September first dove opener. The strips as well as the land parcels were staggered to allow more shooting area for the public hunters.

Wildlife officials estimated 773 participants on opening day, and an overall 25 percent increase in dove hunters countywide. These hunt areas provided good hunting for the remainder of the first half of the dove season, and even some quail hunting opportunity. A letter of thanks from an 82 year old hunter to Leon read, "*this shoot was just like the old times.*"

So, what do Leon and his team have in store for the 2002/2003 season? As you probably can guess...more of the same! All told there will be 29 fields on 2,700 acres of leased land planted with strips of milo, wheat,

safflower, and mixed plots. These properties are scattered from above Niland to southeast of Calipatria. With the success of last year's project, and the increase in hunting areas this year, the Imperial County Dove Hunting Project sounds like the place to be on the opener.

The DFG is grateful to all of the organizations who worked as a team to provide more public hunting opportunity.

Visit the DFG web page for more details on this hunt and others. Please remember to follow all hunting regulations and laws, be respectful of the land, remove all trash and shot shell casings and hunt safely!

Karen R. Fothergill is a wildlife biologist and statewide coordinator of the DFG's Game Bird Heritage Program.

Opposite page: Safflower field in Imperial County, planted by volunteers; mourning dove. DFG file photos.

Above: Imperial County milo field planted by volunteers. Right: Closeup of mature milo seed heads. DFG file photos.

DFG Announces

New: Longer California Pheasant Season

by Tom Blankinship

On August 2, 2002 the Fish and Game Commission adopted a proposal by the DFG to extend the pheasant season statewide by two weeks, making this season 44 days rather than 30 days in length. The DFG proposed the longer season in response to suggestions from the public, and after considering local pheasant biology and season length in other states.

The DFG believes that this change will provide additional hunter opportunity, with no adverse effects on pheasant populations. Most other states have pheasant hunting seasons from six to 12 weeks. Only male pheasants may be legally taken, and post-season composition counts conducted on heavily-hunted state wildlife areas in California show rooster to hen ratios well above those needed to assure that all hens are fertilized the following spring. An additional benefit to a longer season is that some landowners may be more likely to consider pheasant habitat needs when making land management decisions. This would benefit numerous other wildlife species.

Tracks Subscribers: We Need To Hear From You!

Our mailing list is growing... and that's a good thing. But we want to make sure we're only sending *Tracks* to those who want it.

If you subscribed more than a year ago, and you'd like to remain on our mailing list, ***we need to hear from you*** to avoid an interruption in your subscription. Our next issue of Tracks, the Winter 2002 waterfowl issue, will be mailed only to those we hear from. This will allow us to keep our postage costs down while continuing to provide our readers with a high-quality publication. (Those who requested Tracks within the last year will not be removed from the mailing list.)

To remain on the mailing list, simply send a post card or an email to:

DFG Tracks Renewal
1416 Ninth Street #1240
Sacramento, CA 95814
or:
pmontalv@dfg.ca.gov

Be sure to include your mailing address. As always, the subscription is free.

Hunting/Fishing Regulation Schedule

Every year the California Fish and Game Commission prints seven regulation booklets covering fishing, hunting and wildlife area regulations. The booklets go into production as soon as the regulations are approved.

Below is a list of scheduled publication dates for each booklet, as well as the "early bird flyer" which is a summary of upland game regulations. The "early bird flyer" is intended to fill the gap between the time the resident upland game regulations are approved and the release of the 24-page booklet.

Sport Fishing	Jan. 15
Ocean Salmon	May 14
Mammals	May 14
Inland Salmon	June 18
Early Bird Flyer	Aug. 13
Upland Game Birds	Sept. 11
State/Federal Areas	Sept. 11
Waterfowl	Oct. 1

Hunter Education

For a list of hunter education classes in your area, call one of the telephone numbers listed below. A list of certified hunter education classes is also available on the DFG home page, at: http://www.dfg.ca.gov/huntered.

Northern California/North Coast:
(530) 225-2003

Sacramento Valley/Central Sierra:
(916) 351-0833

Central Coast:
(707) 944-5576

San Joaquin Valley/Southern Sierra:
(209) 243-4027

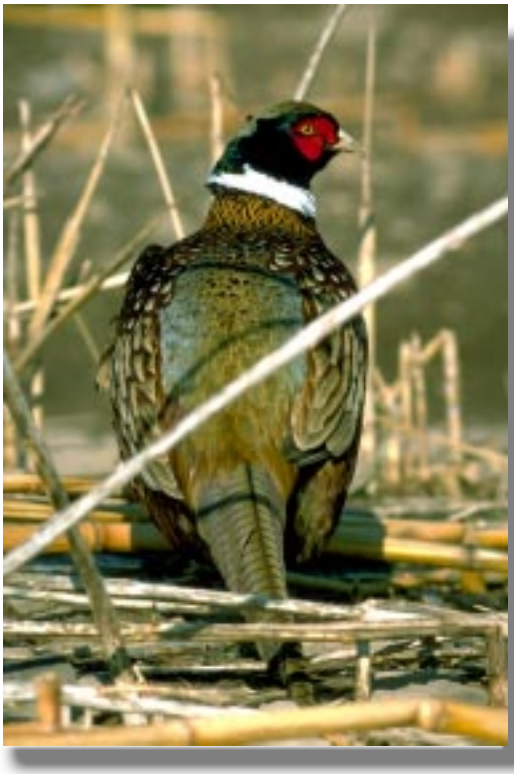
Southern California/Eastern Sierra:
(562) 590-5670

Summary of 2002/2003 Upland Game Hunting Regulations

Species	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Daily Bag Limit	Possession Limit
Pheasant					9–22							2 males per day for first 2 days of season; 3 males per day thereafter	Double the daily bag
Archery Only					9–7								
Falconry Only				1–28									
Quail:												10	20
Zone A(Mt. Quail Only)			14–18										
Zone A (All Quail)				19–26									
Zone B			28–26										
Zone C				19–26									
Archery Only		17–6											
Falconry Only				1–28									
Chukar				19–26								6	12
Falconry Only				1–28									
Archery Only		17–6											
Sage Grouse			14–15									Lassen County: 2 per day or season Inyo/Mono counties: 1 per day or season	
Falconry Only					2–31								
Blue/Ruffed Grouse			14–14									2 All of one species or mixed	Double the daily bag
Archery Only		17–6											
Falconry Only				1–28									
Ptarmigan			14–22									2 per day or season	
Falconry Only				1–28									
Wild Turkey (Spring)									29–4			1 bearded	3 per season
Wild Turkey (Fall)					9–24							1 either sex	1 per season
Dove			1–15		9–23							10 All of one species or mixed	Double the daily bag
Band-tailed Pigeon			21–29 north			21–29 south						2	4
American Crow						7				9		24	48
Tree Squirrel			14–26									4	4
Archery/Falconry Only		3–13											
Rabbits & Varying Hare	1–26											5	10
Falconry Only							27–16						
Jackrabbits	open all year											No limit	No limit
Snipe				19–2								8 per day	Double the daily bag

Pheasants Forever: Their Name Says It All

by Anthony Cline



Despite a growing awareness of the importance of setting aside and improving upland game habitat, more and more habitat is lost each year. Conservation of wild bird habitat is critically important to the longevity of the future hunting of upland game birds. Many national and international non-profit conservation organizations are helping with this vital goal. One in particular is Pheasants Forever.

Pheasants Forever's mission is to protect, restore, and enhance wildlife habitat by establishing and maintaining local and regional projects. The group acquires and conserves critical habitat through public land acquisitions open to public use, and promotes conservation education. The backbone of Pheasants Forever is the unique grassroots system of locally run chapters that raise and retain 100 percent of the net funds (outside of membership fees) to be invested in upland wildlife habitat in their own area.

Local control of the funds and the freedom to spend those funds means county-by-county prioritization of habitat needs. Local control also means access to the network of contacts that chapter leaders have to the landowning public and to natural resources professionals. Local control means there is an incredible incentive to raise more to do more, and to wisely shepherd funds. Local control also means the ability to generate tremendous support from both the general membership and local businesses by presenting a product that local sportsmen and women can see, touch and walk on.

Pheasants Forever concentrates its habitat project efforts on fulfilling the biological needs of the ring-necked pheasant, and on the enhancement of upland areas for wildlife. In most areas pheasants need more upland habitats, and the habitat needs to generally stay the same for several years. Pheasants typically spend most of their lives within 40 acres of where they were hatched. In order to survive within that area the birds need to have a Diversified Upland Habitat Unit.

A Diversified Upland Habitat Unit (DUHU) managed for pheasants is composed primarily of seven components. These components are (1) winter cover, (2) rooster territory edge cover, (3) rooster display areas, (4) hen foraging areas, (5) nesting cover, (6) brood cover, and (7) loafing cover. These components need to be interspersed greatly with one another throughout the management area. Most importantly, brood cover and rooster display cover should be placed adjacent to one another. Hens typically nest in close proximity to rooster display areas, and if excellent brood cover exists next to nesting hens, brood survival will increase tremendously. Having all of these components is necessary to produce high densities of wild pheasants; however, research has shown lack of brood cover alone can limit densities of wild pheasants in the Central Valley of California.

Fields that are left fallow, or that undergo cultivation to reduce weed populations usually don't have enough time to develop into good feeding or nesting areas before being placed back into farm production. At its annual statewide meeting, Pheasants Forever, in conjunction with the DFG, discussed the use of the US Department of Agriculture's (USDA) conservation programs that offer a cash incentive for landowners to enroll marginal cropland and wetland areas into a multi-year set aside program as the alternative to the traditional annual fallow programs.

Multi-year set-aside programs, like the new Conservation Reserve Enhancement Program (CREP), are the key to producing pheasants in the Sacramento Valley and elsewhere. CREP fields provide one of the major components for pheasant production, undisturbed upland habitat consisting of grasses, forbs, and legumes. Fields enrolled in the CREP can be planted with warm season plant species (mainly consisting of native grasses and forbs) as well as cool season plant species (mostly introduced grasses and forbs). In addition, landowners and farmers can also take advantage of the Wetlands Reserve Program (WRP), another USDA conservation program, to improve pheasant and waterfowl habitat. The WRP offers financial and technical assistance to farmers/landowners to restore wetlands in exchange for retiring marginal land from agriculture.

One example of a local CREP project is a program being sponsored by the Yolo County Chapter of Pheasants Forever on a ten acre plot of land outside of Dixon. The project began by negotiating with a local farmer to plant food plots and cover for the birds. By offering to offset the cost of planting native plants and grasses, and providing the support and involvement required to return this land back to prime pheasant habitat, a great conservation effort has begun. In addition, the Yolo County Chapter has donated funds to help underwrite DFG's research of pheasant populations currently being conducted at Grizzly Island Wildlife Area. This project's hypothesis is that providing broadleaf cover is conducive to insect production, which is vital to chick survival.

By getting involved with organizations like Pheasants Forever, you can help lobby state and Congressional representatives for more conservation programs like CREP. As hunters we need to convince our representatives that we should increase incentives for farmers to improve environmental quality The only way this can be successful is if landowners can benefit from it.

We as hunters have a proud heritage that needs to be represented in this conservation movement. You can help. Getting involved with conservation organizations like Pheasants Forever offers hunters an opportunity to direct how their public lands are managed, as well as contribute to the restoration of natural habitat throughout our state. There isn't time to be apathetic. We need to be a strong support for organizations dedicated to promoting the return of native grassland habitat and proper management of wildlife populations. For more information on Pheasants Forever, please visit their Web site at www.pheasantsforever.org. For more information about conservation programs visit the Natural Resources Conservation Service Web site at www.nrcs.usda.gov.

Anthony Cline is a member of the Yolo County Chapter of Pheasants Forever.

DFG file photos.

Ask A Biologist

by Pat Lauridson

Pat Lauridson is a Wildlife Biologist in the DFG Upland Game Unit. He is a graduate of the University of California at Davis and an avid sportsman-conservationist. Prior to his arrival at DFG he worked for five years for the California Waterfowl Association. He can be reached via email at plauridson@dfg.ca.gov.

Question: I hunt a club that releases pen-reared pheasants to enhance shooting opportunities. I've always wondered, if these birds escape being harvested by hunters, do they survive and become part of the local wild pheasant population?

Answer: Many studies have been conducted looking into this very question, including one of the most exhaustive studies occurring right here in California. Results of these studies are in agreement and are quite conclusive that the vast majority of pen-reared pheasants released into the wild do not survive. In fact, of those that do avoid the gun, studies indicate that approximately 60 percent die within the first week of release from other causes. An additional 35 percent will perish in the next six months. What's the reason for such a high death rate? It's rather simple. Due to their protective upbringing they simply do not possess the survival skills necessary to make it on their own in the wild.

Captive-reared birds, raised in an environment void of predators, never develop proper predator avoidance mechanisms. Consequently, natural predators take the main toll, accounting for as much as 90 percent of early mortality. Starvation also accounts for a considerable percentage of deaths. Studies have shown it takes up to three weeks for released pen-reared pheasants to develop foraging strategies necessary for survival in the wild. Most will die of malnutrition or starvation before this development occurs. Shock is also thought to play a role in early mortality, but to what degree is uncertain.

Pheasants that are successful at avoiding hunters and natural predators, properly feeding themselves, and not succumbing to shock still must be able to overwinter. Generally, while surviving a winter in California is easier than doing so in, say, South Dakota, it still presents tough challenges. Location and efficient use of cover is essential to avoiding elements such as wind and cold temperatures. Again, this is yet another strategy never learned in their previously secluded environment and studies have found that only 5 to 10 percent of released pen-reared pheasants are able to successfully over-winter.

All totaled, while the majority of released pheasants don't escape harvest, those that do are faced with, and typically succumb to, the pressures of existence in the wild. As such, the chance of a pen-reared pheasant surviving to become part of the local wild breeding population is very remote. In fact, the extensive California study revealed that after all mortality mechanisms are factored in, only 2 percent of released pen-reared pheasants survive to the first breeding season and none were found to make it to the second year. However, this in some ways may be a good thing considering if many released pheasants survived there could be a risk of genetic dilution of, and disease transmission to, the wild population.

Ask A Warden

by Lt. Liz Schwall

Lt. Liz Schwall is the statewide coordinator of the CalTIP program. She can be reached via email at lschwall@dfg.ca.gov.

***Question*:** Why do I need a hunting license to hunt on my own property? If I own the land, don't I own the wildlife, too?

***Answer*:** In some European countries, fish and wildlife belong to the people who own the land. To hunt or fish, one must be a guest of the landowner or pay a fee. And the cost is usually more than the working person can afford.

In America, fish and wildlife belong to the people, and the people decide how they are to be utilized. Thus, everyone has a chance to hunt and fish. Laws and regulations help to maintain the resource while ensuring this opportunity.

The first law providing protection to game in California was passed by the State Legislature in 1852. Legislation that followed was more or less local in application, but beginning in 1880, protective laws were given more uniform treatment in all counties.

At first the laws were not very effective because a lack of funds prevented the employment of enforcement officers. But in 1908 the hunting license law was passed, providing a source of revenue for wildlife protection. From then on, everyone who hunted in California was required to carry a hunting license.

In an effort to reduce hunting accidents, the Department of Fish and Game required junior hunters to take hunter safety training in 1954, and in 1971, began requiring all people who had not been licensed hunters in the past to pass a hunter education program prior to being issued a hunting license.

Following close on the heels of the hunting license law, the fishing license law was passed. This required people over 16 years of age who fish in California to have a fishing license. A license is not required, however, for the ocean angler fishing from a public pier. Free or reduced-fee fishing licenses are available to qualifying blind people, indigent Indians, the physically or developmentally disabled, wards of state hospitals, disabled veterans and senior citizens receiving state aid to the aged. License fees for hunting and fishing, and taxes on arms, ammunition and fishing gear, provide almost 70 percent of the Department of Fish and Game's financial support. Most of the remainder comes from fines paid by violators of fish and Game laws, from commercial fish taxes, and from the State's general tax fund.

***Question*:** If I kill an animal legally, why is it illegal to sell it?

***Answer*:** In the old days, hunters and anglers were allowed to sell any fish or game they took. But, unfortunately, this encouraged them to take more than their share. Consequently, one by one, the various species were prohibited from sale. It is now illegal to sell or barter any wildlife taken under the authority of a sport hunting or fishing license.

A federal law prohibits the sale of all migratory birds throughout the United States, and a federal plumage law prohibits the importation of the feathers of wild birds. The plumage law was passed when the feathers of certain birds came into demand for use in adorning high-fashion clothing, and several species of birds were hunted to near extinction.

Certain parts of big-game animals are also highly valuable—claws, teeth, gallbladders and antlers in velvet—and it is now illegal to sell these things.

Editor's Note: One of the earliest "fish commissioners" (now called game wardens) was author Jack London. Read more about his activites as a fish commissioner in *The Tales of the Fish Patrol.* The book is out of print but can be found in used book stores.

Game Bird Heritage 2002/2003 Special Hunts

Special accommodations will be provided for the mobility impaired. Contact the hunt coordinator for more imformation.

DOVE HUNTS 2002-2003

Alpaugh, Tulare County	Sept. 1, Sept. 2–15, Nov. 9–Dec. 23, 2002	(559) 243-4005 ext. 132 or 133
Bakersfield, Kern County	Sept. 1, 2, 2002	(559) 243-4005 ext. 132 or 133
Pilibos Wildlife Area, Fresno County	Sept. 1, Sept. 2–15, Nov. 9–Dec. 23, 2002	(559) 243-4005 ext. 132 or 133
Tranquillity, Fresno County	Sept. 1, Sept. 2–15, Nov. 9–Dec. 23, 2002	(559) 243-4005 ext. 132 or 133
Success Lake, Tulare County	Sept. 1-15, Nov. 9-Dec. 23, 2002	(559) 243-4005 ext. 132 or 133
Huron, Fresno County	Sept. 1, Sept 2–15, Nov. 9–Dec. 23, 2002	(559) 243-4005 ext. 132 or 133
Firebaugh, Fresno County	Sept. 1 Sept. 2-15, Nov. 9–Dec.23, 2002	(559) 243-4005 ext. 132 or 133
Winton, Merced County **Juniors Only**	Sept 7, 2002	(559) 243-4005 ext. 132 or 133
Cuyama Valley, Santa Barbara Co.	Sept. 1 a.m./p.m., 2002	(562) 590-5100
Rancho Jamul Ecological Reserve, San Diego County	Sept. 1, 2 a.m./p.m., 2002	(562) 590-5100
Peace Valley, Los Angeles County	Sept. 1 a.m./p.m., 2002	(562) 590-5100
Hollenbeck, San Diego County	Sept. 1 a.m./p.m., 2002	(562) 590-5100
Cosumnes River Preserve, Sacramento County	Sept. 1, 2, 2002	(916) 358-2877

QUAIL HUNTS 2002-2003

Peace Valley, Los Angeles County	Oct. 19-20, 2002	(562) 590-5100
Hollenbeck, San Diego County	Oct. 19-20, 2002	(562) 590-5100

WOMEN'S PHEASANT HUNTS 2002-2003

Green Gulch Ranch, Plumas County	Oct. 26 a.m./p.m., 2002	(916) 358-2877 or (530) 288-3634
Delta Islands, Sacramento County	Nov. 10, 2002	(209) 948-7800
Feather River Wildlife Area, Sutter County	Oct. 19, 20 a.m./p.m.; Nov. 2, 3 a.m./p.m., 2002	(916) 358-2877
Gustine, Merced County	Dec. 7, 2002	(559) 243-4005 ext. 132 or 133
Bakersfield, Kern County	Nov. 30, 2002	(559) 243-4005 ext. 132 or 133
Mapes Ranch Modesto, Stanislaus County	Nov. 30, 2002	(559) 243-4005 ext. 132 or 133
Shasta County Sportsmen's Club, Tehama County	Nov. 30, 2002	(530) 225-2867 (530) 597-2201
Honey Lake Wildlife Area, Lassen County	Nov. 2, 2002	(530) 254-6644
Eel River Wildlife Area, Humboldt County	Sept. 7, 2002	(707) 441-5789
San Miguel Women's Hunting Clinic, Monterey County	Dec. 7, 2002	(831) 649-2890 or (707) 944-5500
Peace Valley, Los Angeles County	Oct. 13 a.m./p.m., 2002	(562) 590-5100
Rancho Jamul, San Diego County	Nov. 2 a.m./p.m., 2002	(562) 590-5100

FAMILY PHEASANT HUNTS 2002-2003

Little Dry Creek, Upper Butte Basin Wildlife Area, Butte County	Nov. 10, 2002	(530) 982-2169
Gustine, North Grasslands W.A., China Island Unit, Merced County	Nov. 16, 2002	(559) 243-4005 ext. 132 or 133
Merced Wastewater Treatment Facility, Merced County	Nov. 1 Dec. 2, 2002	(559) 243-4005 ext. 132 or 133
Modesto, Stanislaus County	Dec. 7, 2002	(559) 243-4005 ext. 132 or 133
Bakersfield, Kern County	Nov. 16, 2002	(559) 243-4005 ext. 132 or 133
Stevinson, Merced County	Nov. 30, 2002	(559) 243-4005 ext. 132 or 133
Alpaugh, Tulare County	Nov. 16, 2002	(559) 243-4005 ext. 132 or 133
Kettleman City, King County	Nov. 16, 2002	(559) 243-4005 ext. 132 or 133
Chowchilla, Madera County	Nov. 16, 2002	(559) 243-4005 ext. 132 or 133
San Joaquin–Tranquillity, Fresno County	Nov. 16, 2002	(559) 243-4005 ext. 132 or 133
Casitas, Ventura County	Dec. 14 a.m./p.m.	(562) 590-5100
Cuyama Valley, Santa Barbara Co.	Sept. 28, 29 a.m./p.m.; Dec. 21, 22 a.m./p.m.; Jan. 18 a.m./p.m., 2003	(562) 590-5100
Peace Valley, Los Angeles County	Nov. 9, 10 a.m./p.m.; Jan. 4, 5 a.m./p.m.;	(562) 590-5100
Rancho Jamul, San Diego County	Oct. 5, 6 a.m./p.m.; Nov. 3 a.m./p.m., 2002 Jan. 11, 12, 2003	(562) 590-5100
Robinson Schindler, Desert Security, Tohshin Farms, Riverside County	Nov. 24, 2002	(909) 627-1613

WILD TURKEY HUNTS 2002-2003

Daugherty Hill Wildlife Area, Yuba County	Mar. 29, 30; Apr. 2, 5, 9, 2003	(916) 358-2877
Oroville Wildlife Area, Butte County	Mar. 29, 30 Apr. 12, 13; Apr. 26, 27, 2003	(916) 358-2877
Spenceville Wildlife Area, Nevada & Yuba Counties	Mar. 29, 30; Apr. 2, 5, 9, 2003	(916) 358-2877
U. C. Field Station, Browns Valley, Yuba County JUNIORS ONLY	TBA April 2003	(530) 743-5068
Lake Sonoma, Sonoma County	Nov. 16, 17, 2002 Mar. 29, 30, 2003	(707) 944-5537 or (707) 944-5500
Lake Sonoma, Sonoma County JUNIORS ONLY	Nov. 9, 10, 2002 Apr. 5, 6, 2003	(707) 944-5537 or (707) 944-5500
Millerton Lake State Rec.Area, Fresno County - ARCHERY ONLY	Mar. 29, 30, 2003 Mar. 31–Apr. 6; Apr. 7–13,14–20, 21-27 Apr. 28–May 4, 2003	(559) 243-4005 ext. 132 or 133
Tejon Ranch, Kern County	Apr. 16, 23, 2003	(559) 243-4005 ext. 132 or 133
Tejon Ranch, Kern County JUNIORS ONLY	Apr. 12, 19, 26, 2003	(559) 243-4005 ext. 132 or 133

JUNIOR PHEASANT HUNTS

*Ash Creek Wildlife Area, Lassen/Modoc counties	Sept. 14, 2002	(530) 294-5824
Butte Valley Wildlife Area, Siskiyou County	Sept. 7, 2002	(530) 398-4627
Shasta Valley Wildlife Area, Siskiyou County	Nov. 16, 2002	(530) 459-3926
*Shasta County Sportsmen's Club, Tehama County	Nov. 16, 17, 2002	(530) 225-2867 or (530) 597-2201
*Eel River Wildlife Area, Humboldt County	Nov. 16, 17, 2002	(707) 441-5789
Lake Earl Wildlife Area, Del Norte County	Nov. 16, 17, 2002	(707) 464-2523
Honey Lake Wildlife Area, Lassen County	Oct. 26, 27, 2002	(530) 254-6644
Headwaters Honker Preserve, Plumas County	Oct. 26 a.m./p.m., 2002 Oct. 27 a.m., 2002	(916) 358-2877
Gray Lodge Wildlife Area, Butte County	Nov. 16 a.m., 2002	(530) 846-7500
Oroville Wildlife Area, Butte County	Nov. 23 a.m./p.m., 2002	(530) 538-2236
Delta Islands, Sacramento County	Nov. 16, 17, 2002	(209) 948-7800
Llano Seco Ranch, Glenn County	Dec. 15 a.m., 2002	(530) 934-280
Feather River Wildlife Area, Sutter County	Oct. 19, 20 a.m., 2002 Oct. 26, 27 a.m./p.m.; Nov. 2, 3 a.m./p.m., 2003	(916) 358-2877 or (530) 982-2169
**Upper Butte Basin Wildlife Area- Little Dry Creek Unit, Butte County	Nov. 16, 17 a.m., 2002	(530) 982-2169
Stockton Sportsmen's Club, San Joaquin County	Nov. 9 - Dec. 1, 2002	(209) 957-9717
Yolo Bypass Wildlife Area, Yolo Co.	Nov. 16 a.m., 2002	(530) 757-2461
Grizzly Island Wildlife Area, Solano County	Nov. 16, 17, 2002	(707) 425-3828 or (707) 944-5500
Napa-Sonoma Marshes W. A., Napa-Solano County	Nov 16, 2002	(707) 944-5542 or (707) 944-5500
Laytonville, Lyon's Club, Bernie Geiger Memorial, Mendocino County	Nov. 16, 2002	(707) 984-8992 or (707) 944-5500
San Miguel-Ray Azbil, San Luis Obispo County	Feb. 1, 2, 2002	(805) 238-4236 or (707) 944-5500
Highland Springs Lake Co. Flood Control District, Lake County	Nov. 16, 2002	(707) 944-5537 or (707) 944-5500
Mapes Ranch, Stanislaus County	Nov. 9, 10, 2002	(559) 243-4005 ext. 132 or 133
*Mendota Wildlife Area, Fresno Co.	Nov. 16, 23, 30, 2002	(559) 243-4005 ext. 132 or 133
*O'Neill Forebay Wildlife Area, Merced County	Nov. 16, 17, 30; Dec. 1, 2002	(559) 243-4005 ext. 132 or 133
*Taft, Kern County	Nov. 9, 10, 2002	(559) 243-4005 ext. 132 or 133 or (661) 765-5584
*Success Lake, Tulare County	Nov. 16, 17, 2002	(559) 243-4005 ext. 132 or 133 or (559) 562-0982
*Lake Isabella, Kern County	Nov. 16, 17, 2002	(559) 243-4005 ext. 132 or 133 or (760) 379-34825
Peace Valley-Gorman, L.A. Co.	Oct. 12 a.m./p.m., 2002	(562) 590-5100
Rancho Jamul, San Diego County	Dec. 7, 8, 2002	(562) 590-5100
San Jacinto Wildlife Area, Riverside County	Nov. 10, 2002	(909) 627-1613
Little Antelope – Slinkard Valley	Nov. 9, 2002	(760) 932-5749
Wildlife Area, Mono County	Dec. 7, 8, 2002	(909) 627-1613
Imperial Valley, Imperial Co.		
Robinson. Schindler, Desert Security, (909) 627-1613		Nov. 23, 2002
Tohshin Farms, Riverside County		
Imperial Wildlife Area Wister Unit, Imperial County	Nov. 16, 2002	(909) 627-1613
Camp Cady Wildlife Area, San Bernardino County	Dec. 14, 2002	(909) 627-1613

*Recommended for first-time hunters **Recommended for experienced hunters

MOBILITY IMPAIRED HUNTS 2002-2003

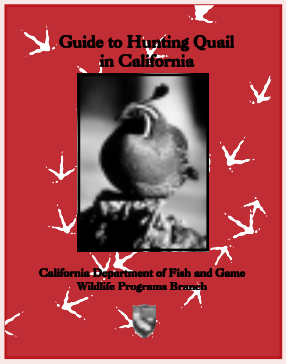
Birds Limited, Placer County	By Appt.	(530) 823-9310 or (916) 445-3703 or (916) 445-3452
Chowchilla, Madera County	Nov. 17, 2002	(559) 243-4005 ext. 132 or 133
Feather River Wildlife Area, Sutter County **Juniors Only**	Oct. 27 p.m., 2002	(916) 358-2877

COOP SPORTSMEN'S CLUB PUBLIC PHEASANT HUNTS 2002-2003

Stockton Sportsmen's Club, San Joaquin County	Nov. 9-Dec. 1, 2002	(209) 957-9717
Southern Tulare County Sportsman's Association	Nov. 9-Dec. 8, 2002	(559) 243-4005 ext. 132 or 133 or (559) 562-0982

WILD BIRD PUBLIC HUNTS

Delta Islands (Pheasant Hunt), Sacramento County	Nov. 13,16,20,23,27,30; Dec. 4,7, 2002	(209) 948-7800
South East Fremont Weir, (Pheasant Hunt) Yolo County	Nov. 9,13,16,20,23,27,30; Dec. 4,7, 2002	(961) 358-2877
Imperial Valley (Dove Hunt), Imperial County	Sept. 1,. 2002 through Jan. 26, 2003	(909) 627-1613



Guide To Hunting Quail in California Now Online!

A new, fully updated and expanded Guide To Hunting Quail in California is now available on the DFG Web site at www.dfg.ca.gov/publications.

The printed version is expected to be available by Oct. 1, 2003.

The Next Time You're Touched By the Beauty of Wildlife, Thank a Hunter.

That's because hunters have funded the most successful wildlife conservation effort in history—over *$5 billion* generated so far.

More than a half-century ago, hunters responded to the alarming decline in wildlife populations by supporting an 11 percent tax on the purchase of firearms, ammunition and archery equipment, and a 10 percent tax on handguns. Congress approved the tax in 1937 through the passage of the **Wildlife Restoration Act**. Commonly called the Pittman-Robertson Program, after its Congressional sponsors, the program gives the tax revenue directly to states for wildlife management and research programs, habitat acquisition and hunter education and training.

WILDLIFE RESTORATION

Thanks to the Wildlife Restoration Act, many species have been restored to healthy numbers, and their habitat will be preserved for future generations.

This message is paid for by hunters ... the original wildlife conservationists.

Department of Fish & Game
P.O. Box 944209
Sacramento, CA 97244-2090